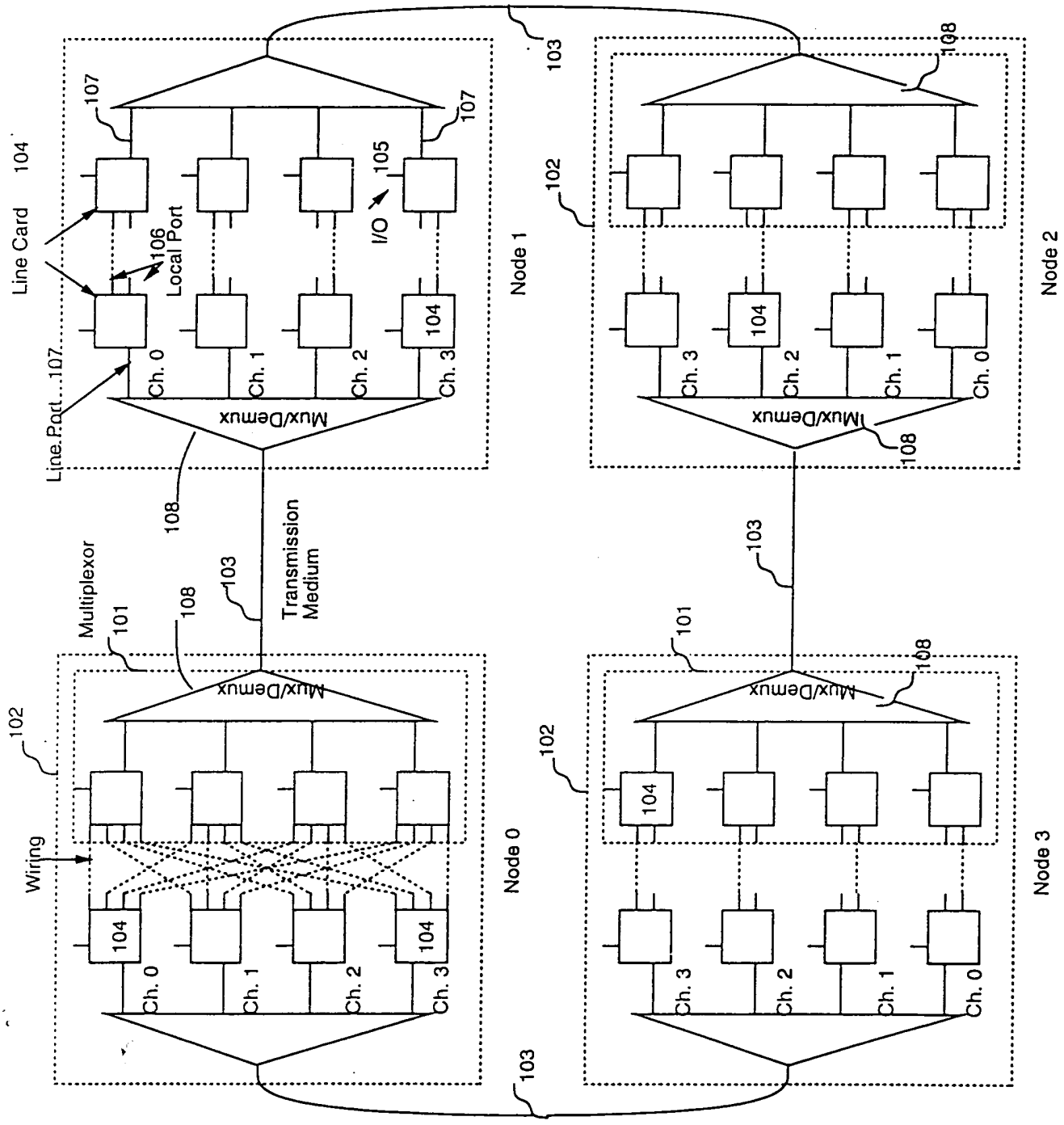

Line Card
104
Line Port
107
106
Local Port
105
I/O
Ch. 0
Ch. 1
Ch. 2
Ch. 3
Mux/Demux
Node 1
Node 2
Node 0
Node 3
Multiplexor
101
Transmission Medium
103
108
102
Wiring

Figure 1:

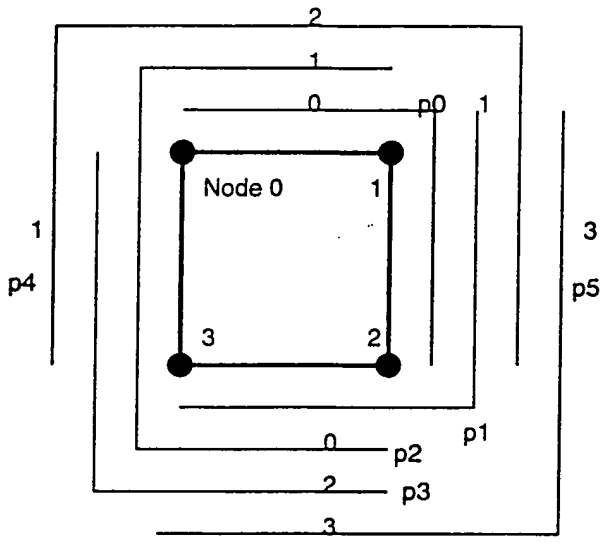


Figure 2:

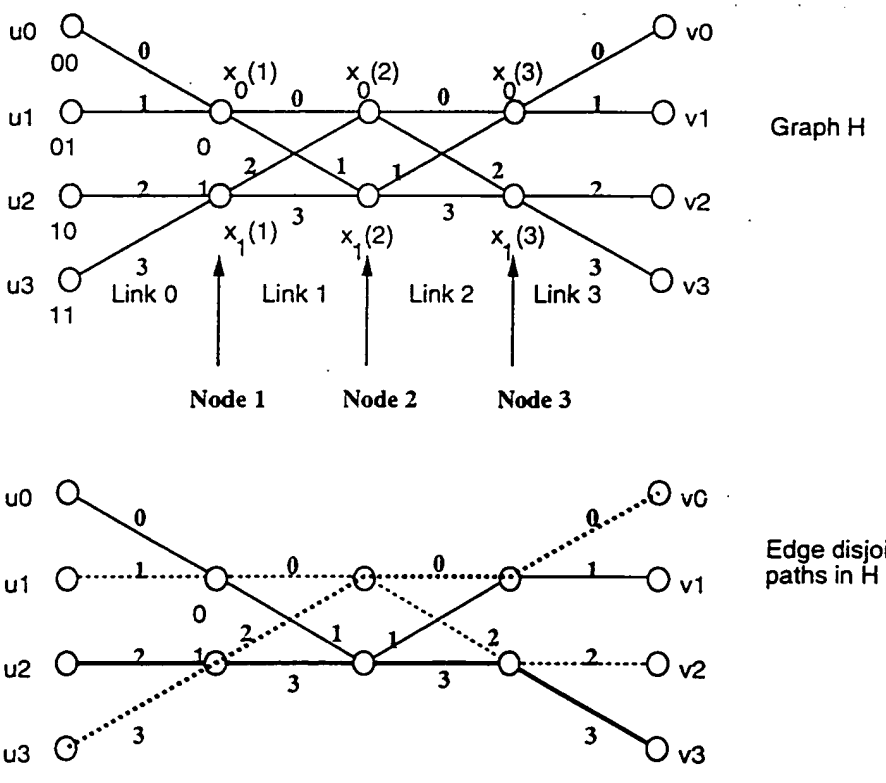


Figure 3:

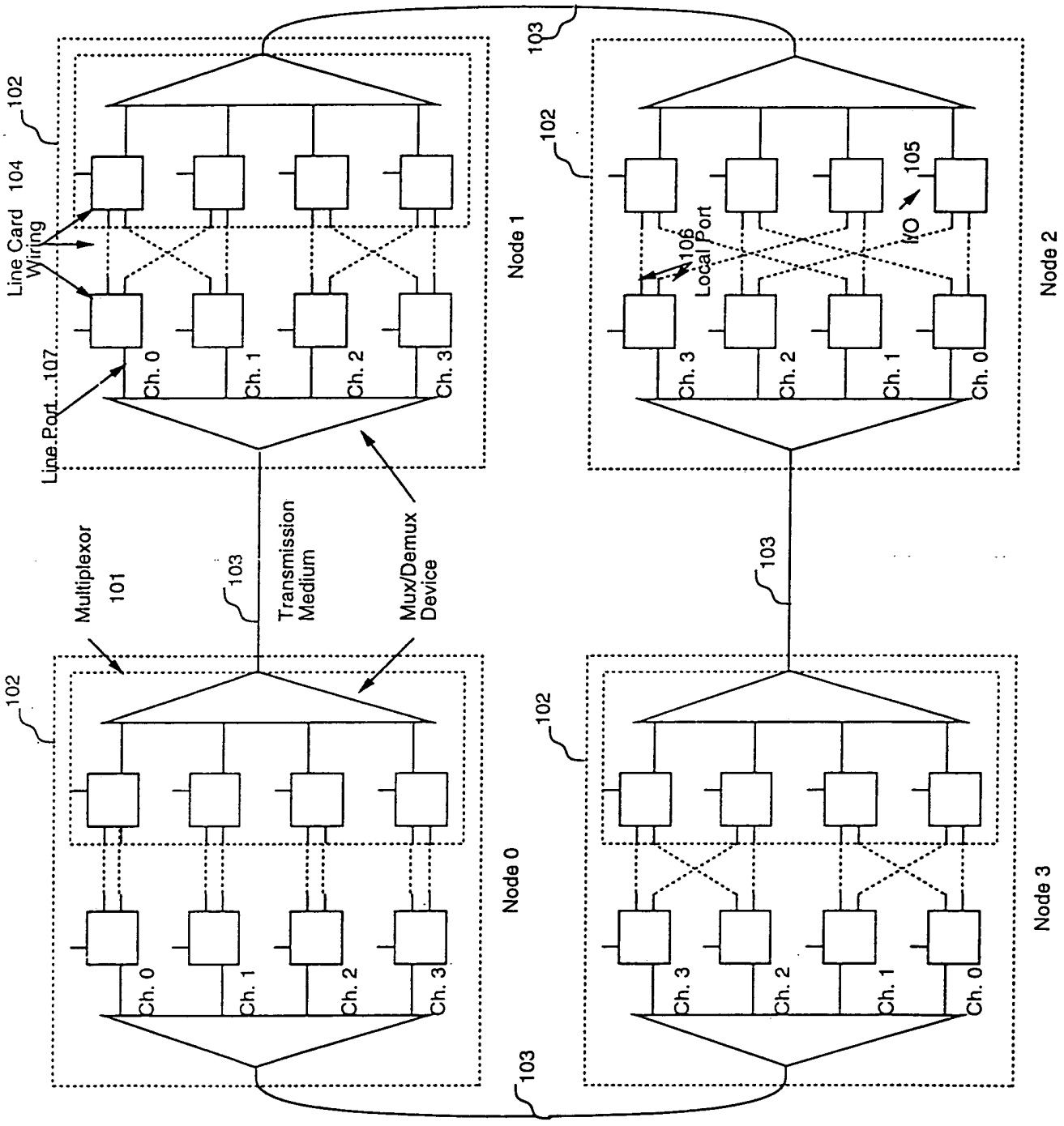

102
103
Line Card Wiring 104
Line Port 107
Ch. 0
Ch. 1
Ch. 2
Ch. 3
Node 1
Node 2
Node 0
Node 3
106
Local Port
105
I/O
Multiplexor 101
Transmission Medium
Mux/Demux Device

Figure 4:

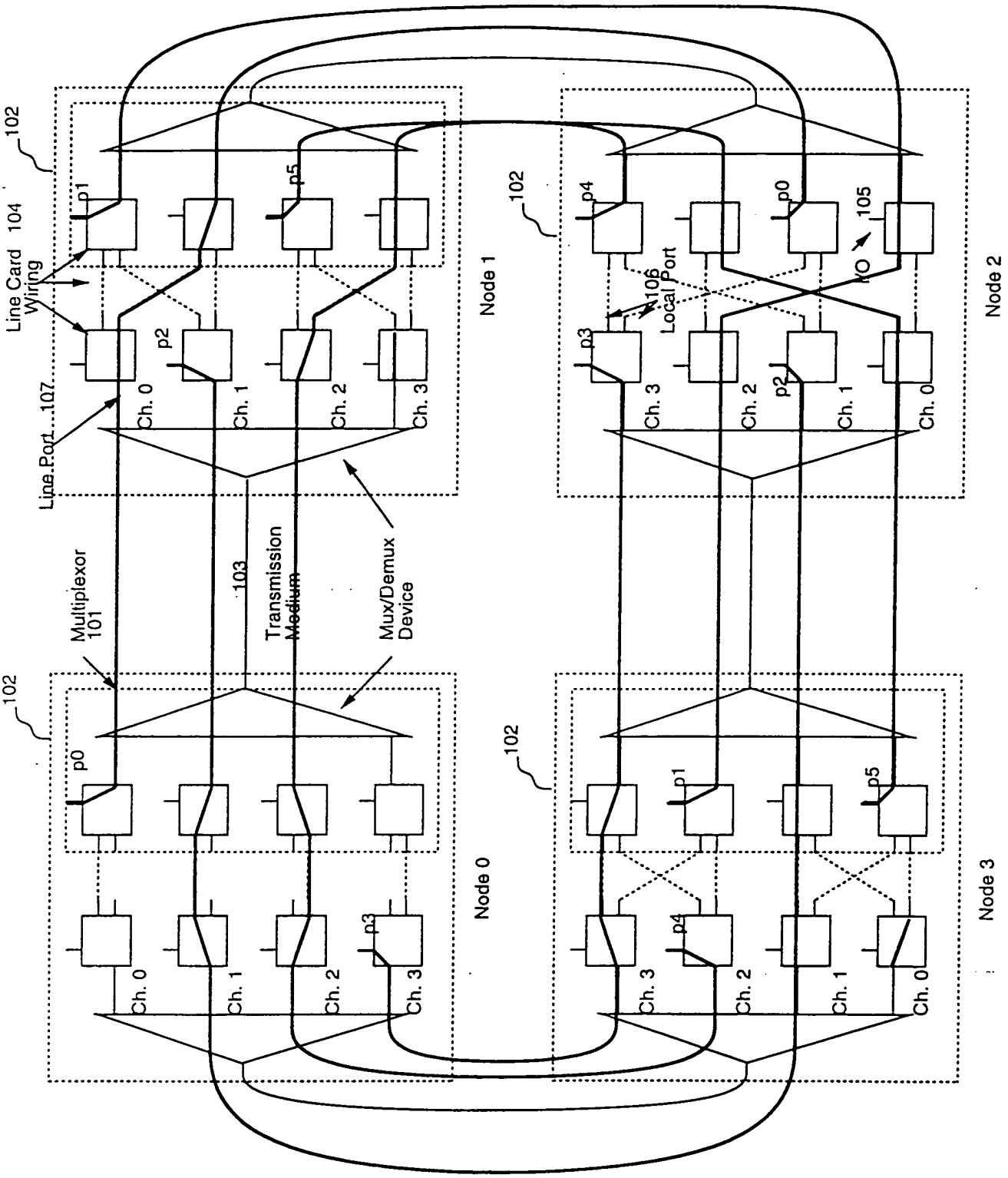

102
104
Line Card Wiring
107
Line Port
Multiplexor 101
103
Transmission Medium
Mux/Demux Device
Node 1
Node 2
Node 0
Node 3
Local Port
106
105
I/O
p0
p1
p2
p3
p4
p5
Ch. 0
Ch. 1
Ch. 2
Ch. 3

Figure 5:

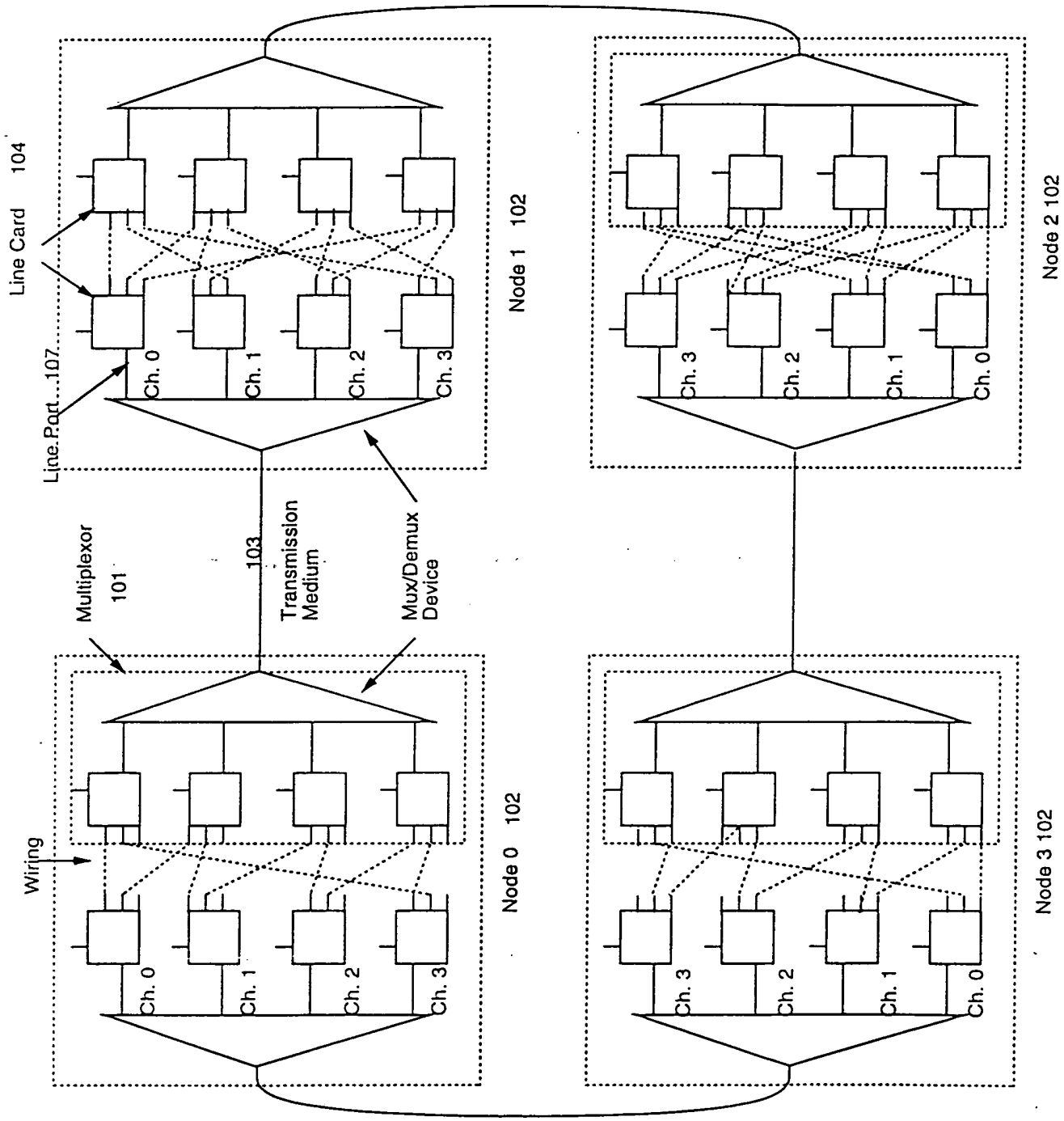

Line Card 104
Line Port 107
Multiplexor 101
103
Transmission Medium
Mux/Demux Device
Wiring
Node 0 102
Node 1 102
Node 2 102
Node 3 102
Ch. 0
Ch. 1
Ch. 2
Ch. 3

Figure 6:

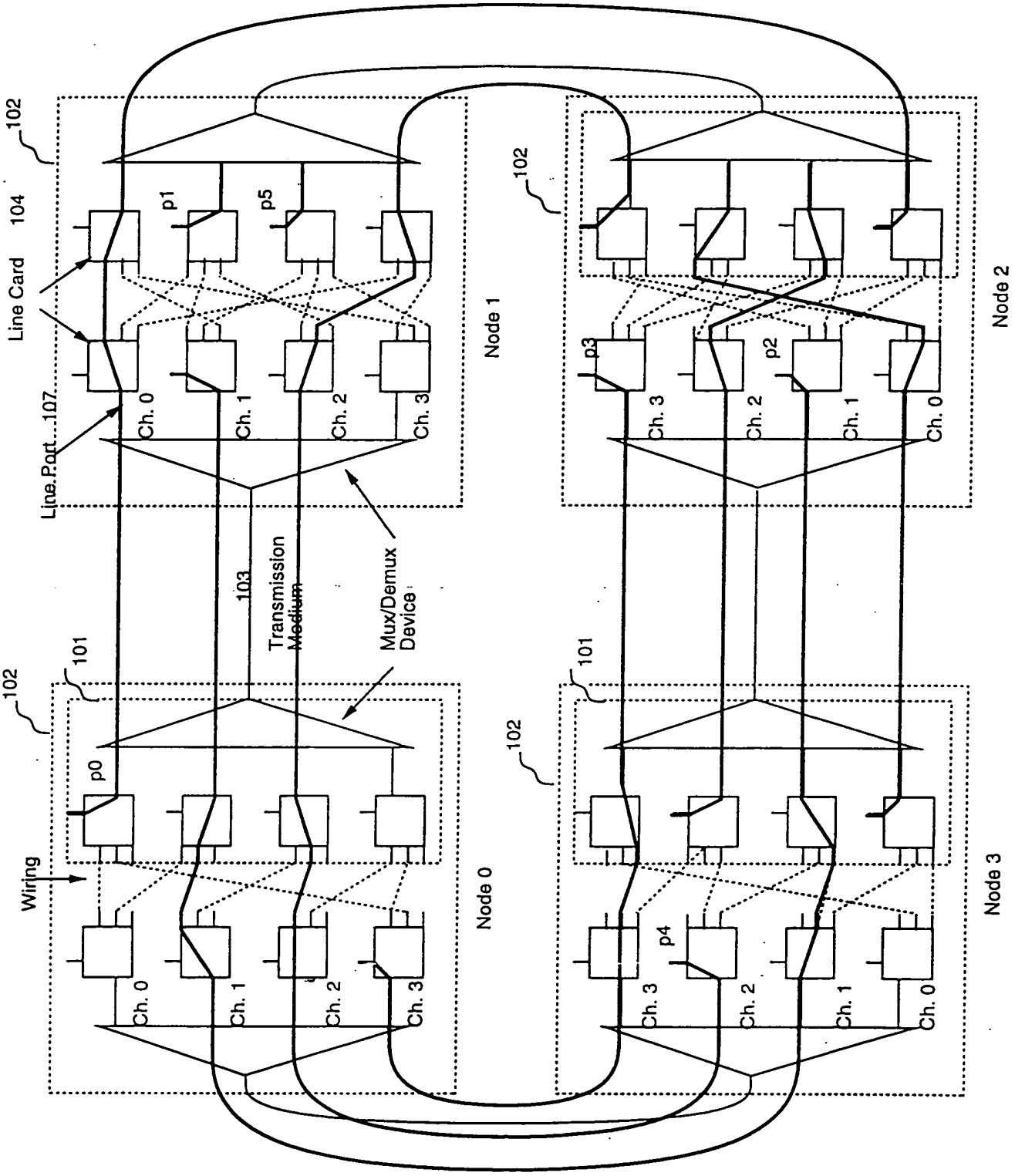

102
104
Line Card
107
Line Port
p1
p5
Ch. 0
Ch. 1
Ch. 2
Ch. 3
Node 1
Node 2
p3
p2
Ch. 3
Ch. 2
Ch. 1
Ch. 0
103
Transmission Medium
Mux/Demux Device
101
p0
Wiring
Node 0
p4
Node 3

Figure 7:

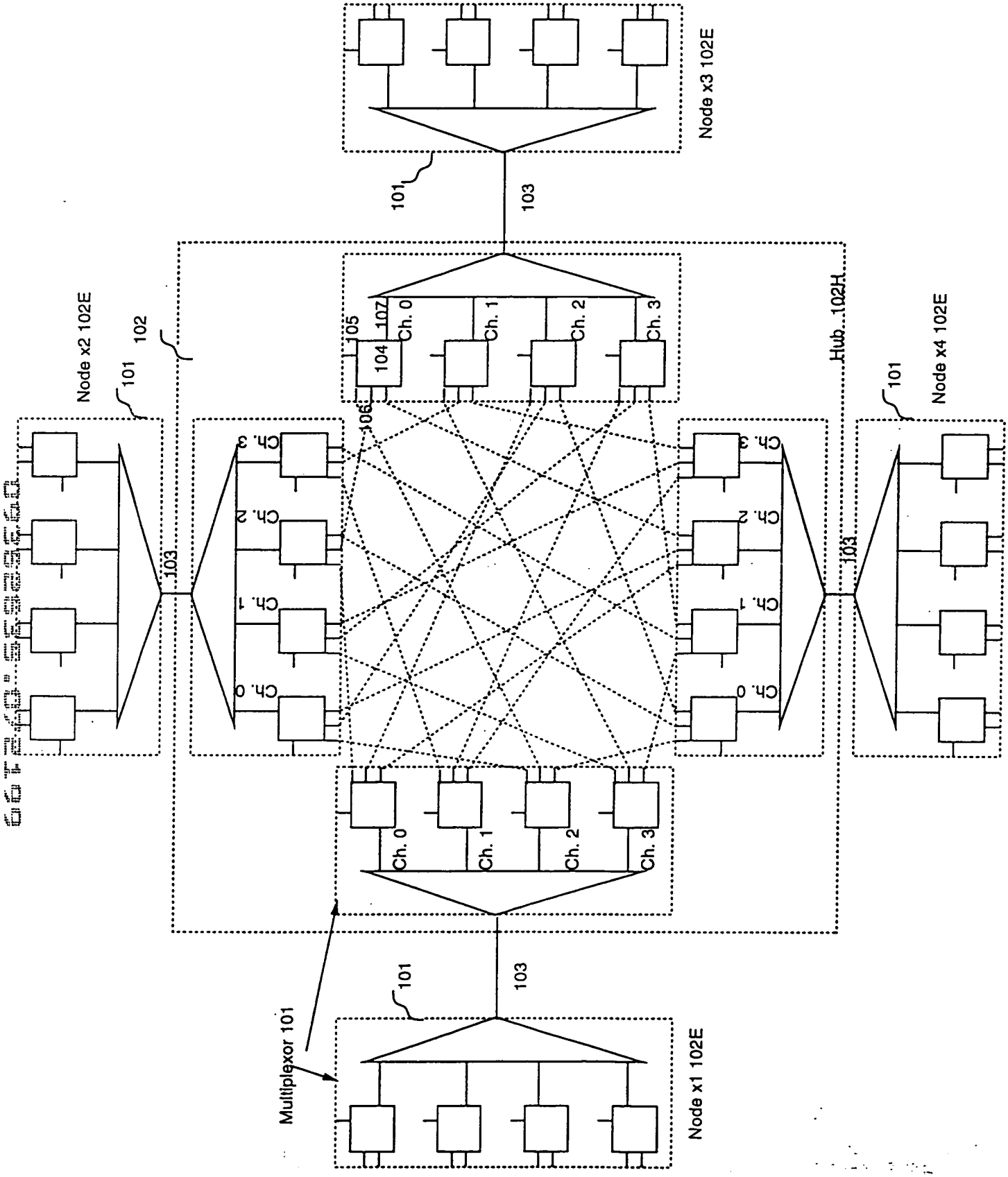
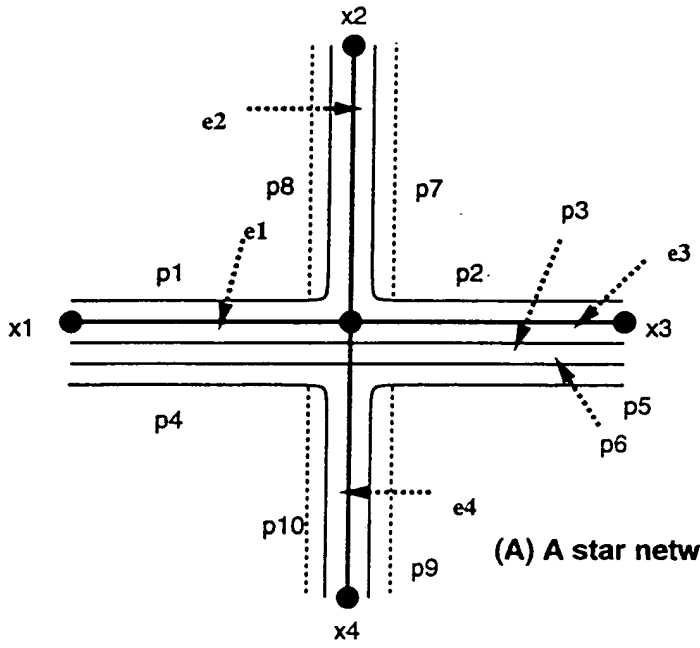
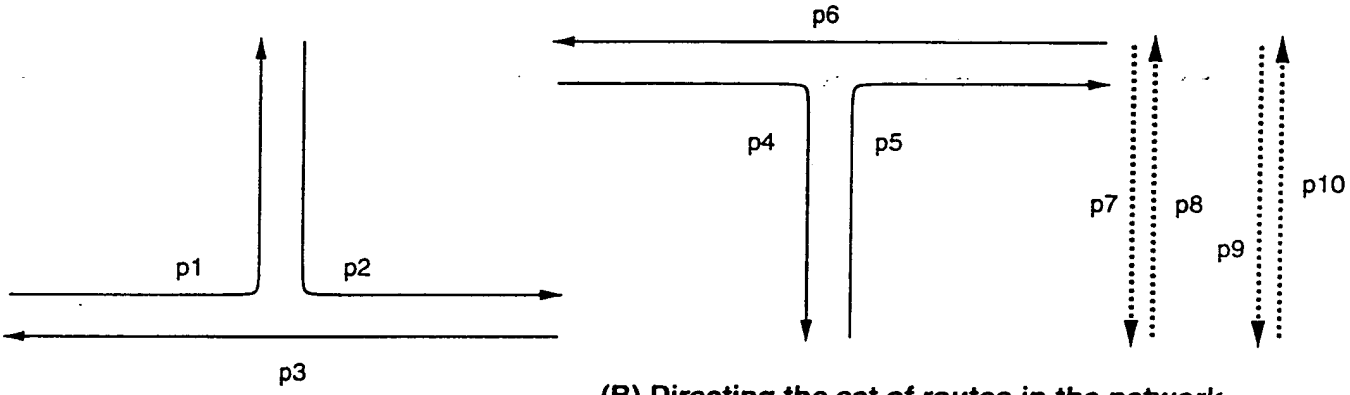

Node x3 102E
101
103
Node x2 102E
102
101
Hub 102H
105
107
Ch. 0
Ch. 1
Ch. 2
Ch. 3
104
106
Node x4 102E
101
Ch. 3
Ch. 2
Ch. 1
Ch. 0
103
103
Ch. 0
Ch. 1
Ch. 2
Ch. 3
Multiplexor 101
101
103
Node x1 102E

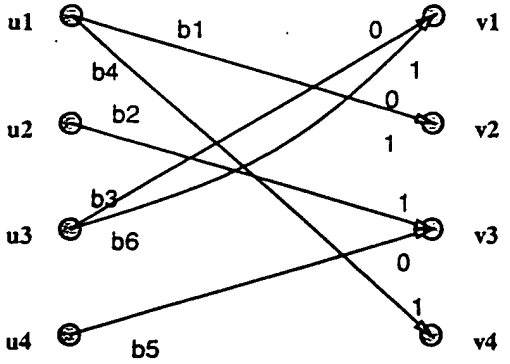
Figure 8:



(A) A star network with 4 spoke nodes



(B) Directing the set of routes in the network



(C) The bipartite graph G

Figure 9:

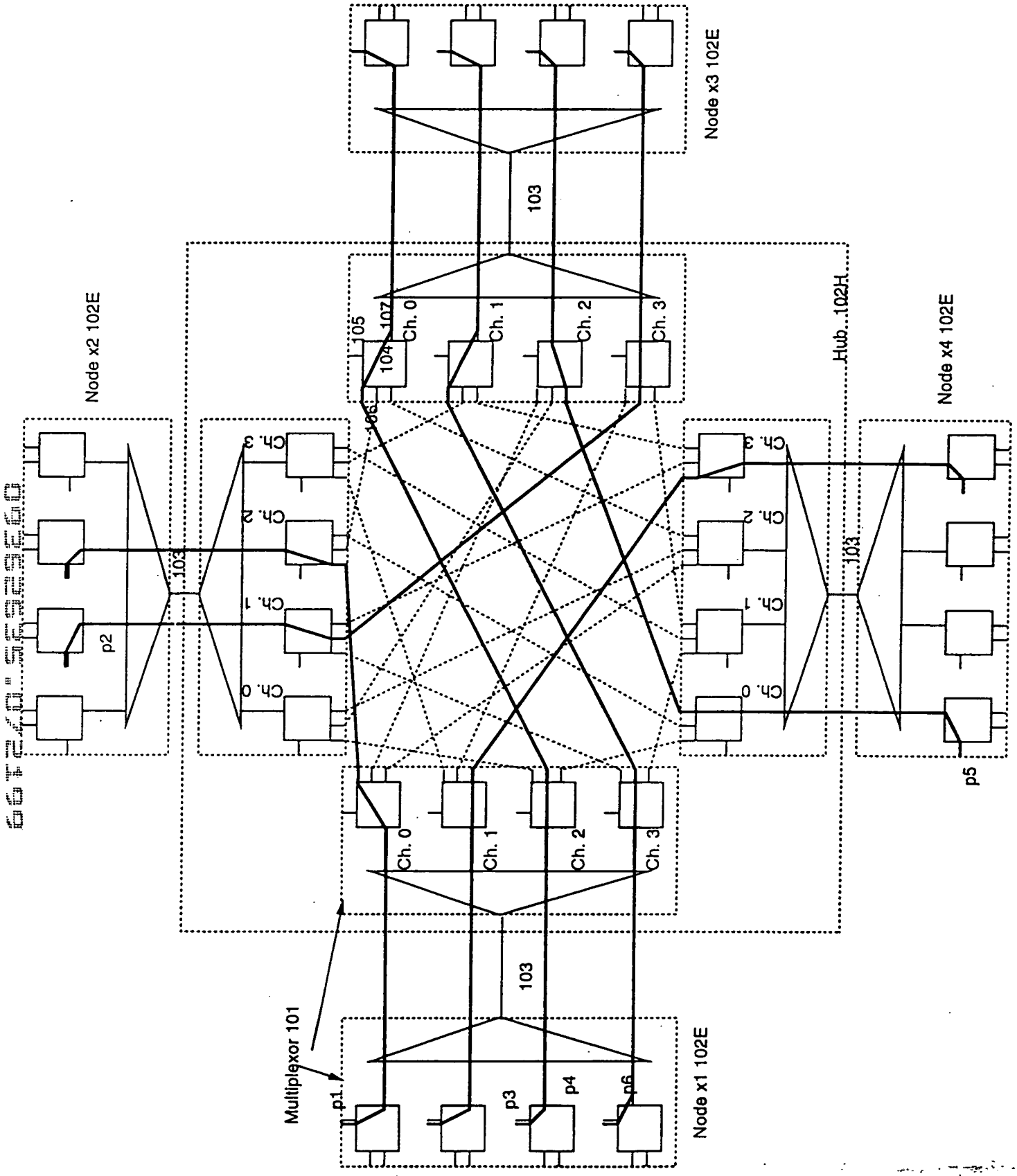

Node x3 102E
103
Node x2 102E
Hub 102H
Node x4 102E
105
104
107
Ch. 0
Ch. 1
Ch. 2
Ch. 3
106
Ch. 3
Ch. 2
Ch. 1
Ch. 0
103
p2
p5
Ch. 0
Ch. 1
Ch. 2
Ch. 3
103
Multiplexor 101
p1
p3
p4
p6
Node x1 102E

Figure 10: